

3. (Original) The cytotoxic reagent of claim 2, wherein said antibody is LL2.

4. (Original) A method of killing malignant B cells comprising contacting cells to be killed with a cytotoxic reagent expressed by recombinant DNA, comprising a sequence selected from the group consisting of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:11, SEQ ID NO:13, SEQ ID NO:15, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:24 and SEQ ID NO:26 covalently linked to a ligand binding moiety, said ligand binding moiety being directed against a cell surface antigen on the malignant B cells.

5. (Original) The method of claim 4, wherein said ligand binding moiety is an antibody.

6. (Original) The method of claim 5, wherein said antibody is a single chain antibody.

7. (Original) The method of claim 5, wherein said ligand binding moiety is an antibody directed against CD22.

8. (Original) The method of claim 7, wherein said antibody is LL2.

9. (New) A cytotoxic reagent comprising a recombinant ribonuclease that is linked to a ligand binding moiety directed against a cell surface antigen present on a cancerous B cell, wherein the recombinant ribonuclease has:

(a) measurable ribonuclease activity,

(b) an amino terminal end beginning with a glutamine,

(c) a leucine at position 11; an asparagine at position 21, a threonine at position 85, and a histidine at position 103, such positions being determined through alignment with reference to those specified amino acid positions of SEQ ID NO:2, and

(d) substantial identity to SEQ ID NO:2.

10. (New) The cytotoxic reagent of claim 9, wherein said ligand binding moiety is an antibody.

11. (New) The cytotoxic reagent of claim 10, wherein said antibody is a single chain antibody.

12. (New) The cytotoxic reagent of claim 10, wherein said antibody is directed against CD22.

13. (New) The cytotoxic reagent of claim 12, wherein said antibody is LL2.

14. (New) A cytotoxic reagent comprising a recombinant ribonuclease that is linked to a ligand binding moiety directed against a cell surface antigen present on a cancerous B cell, wherein the amino acid sequence of the recombinant ribonuclease is selected from the group consisting of: SEQ ID NO:15, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:22, SEQ ID NO:24, and SEQ ID NO:26.

15. (New) The cytotoxic reagent of claim 14, wherein said ligand binding moiety is an antibody.

16. (New) The cytotoxic reagent of claim 15, wherein said antibody is a single chain antibody.

17. (New) The cytotoxic reagent of claim 15, wherein said antibody is directed against CD22.

18. (New) The cytotoxic reagent of claim 17, wherein said antibody is LL2.